

REMARKS

This application has been amended so as to place it in condition for allowance at the time of the next Official Action.

Applicants are thankful for the Examiner's agreement to grant the personal interview conducted December 4, 2003, as well as his most helpful and active participation therein.

The Official Action objects to the title of the invention as non-descriptive. Please note that applicants have changed the title as recommended by the Examiner.

The Official Action rejects claims 1 and 2 under 35 USC 102(b) as being anticipated by FUCHS et al. 5,257,965. The Official Action rejects claims 3-7 under 35 USC §103(a) as being unpatentable over the same FUCHS et al. reference. Reconsideration and withdrawal of this rejection are respectfully requested for the following reasons:

As discussed during the personal interview, the applied FUCHS et al. reference describes a roller having proportions and application significantly different from those of the present invention. Among the rejected claims is claim 7, which recites a number of alternative compositions for the workability improver of rejected claim 1. In rejecting claim 7, the Official Action states that one of ordinary skill in the art would have expected applicants' invention to perform equally well with either the workability improver taught by FUCHS et al. or the claimed

improvers. Applicants note, however, that the workability improvers disclosed and recited by the present application differ significantly from the additives and activators of FUCHS et al.

As noted in the application as originally filed, the workability improvers have the characteristic of improving moldability, mold-releasability, cutting/grinding workability, and grinding accuracy of a molded body obtained from the hydraulic composition. This is different from any characteristic addressed in the prior art, a fact that may be clouded by the alternative meanings of "workability" in the art, as exemplified by the passage in Cement Chemistry made of record in the amendment filed June 9, 2003, where it is stated: "Water-reducing agents, also called plasticizers, allow a given degree of workability to be achieved at a lower w/c ratio."

Similarly, the German patent document that underlies the applied FUCHS et al. reference and to which such reference refers describes the additives and activators in the form of such a water-reducing agent. Specifically, β -sodium naphthalene sulfonate-formaldehyde condensate is identified as a high-performance water-reducing agent that is preferred from the standpoint of the flowing property it imparts.

However, the workability (as defined in the present application) of the present invention cannot be achieved merely

through the use of mere water-reducing agents. As noted in the application as originally filed, beginning on page 20:

The workability improver means a material that improves moldability, mold-releasability, cutting/grinding workability and grinding accuracy of the molded body obtained from the hydraulic composition, particularly has properties to contribute to improvement of the cutting/grinding workability and grinding accuracy. That is, since the workability improver added functions as a molding aid during the press molding, the mixture including the hydraulic composition improves the moldability. That is, the workability improver makes the mixture composed of non-flowing curable composition to be uniformly filled and uniformly pressed. Further, the workability improver improves brittleness of the cement-based hydraulic body, so that the molded body is released from the mold during the releasing step without being damaged at all, resulting in improvement of the workability. In general, the molded body obtained from the hydraulic composition exhibits a cut state of a "crack-type" mechanism in cutting. In this case, problems occurs that the material is broken or chipped (including microscopical phenomena).

Since the hydraulic composition in the present invention contains the workability improver, it is possible to prevent cracking and chipping of the above material to which toughness is imparted to exhibit the mechanical workability in the molded body as a solid material. That is, the workability of the molded body obtained from the hydraulic composition which has been difficult to effect mechanical workings such as cutting, grinding, etc. can be improved to the same level as that of the metallic materials with the workability improver. The molded body can be cut with the lather or the like and ground with a cylindrical grinder or the like as in the same manner as in the metallic materials. The molded body can be finely worked within an order of μm relative to a desired dimension.

Furthermore, the descriptions of the various examples beginning on page 31 of the specification point out the

advantages of the use of workability improvers such as those recited in original claim 7. These measured improvements and characteristics of the roller cannot be attributed to the water-reducing additives known in the prior art.

Accordingly, as the specific compounds of original claim 7 are unknown as additives in the prior art, as are the advantages to be gained therefrom, applicants have amended claim 1 to recite the Markush group of original claim 7. As necessitated by such amendment, applicants have canceled claim 7.

In addition to such amendment to claim 1, please note that applicants have added new claims 24-30. Each of these new claims depends directly from amended claim 1 and recites a respective one of the compounds in the Markush group of amended claim 1.

As the FUCHS et al. reference clearly fails to disclose the compounds recited in claim 1, the present anticipation rejection of claim 1 cannot stand. Furthermore, as there exists neither teaching nor suggestion for such compounds added to a hydraulic composition and a non-hydraulic powder in either FUCHS et al. or any of the other known prior art, applicants respectfully suggest that the rejection of claims 3-7 cannot stand, nor can a new obviousness rejection of amended claim 1 be made.

Applicants note the explicit statement in the Official Action that claims 8-23 are allowed.

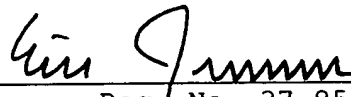
Entry of the above amendments is earnestly solicited. Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Please charge the fee of \$108 for the six extra dependent claims added herewith, to Deposit Account No. 25-0120.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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